

C1 35. (Amended) The array of claim 33 or 34, wherein said interaction is characterized in that the linkage is not cleaved during addition of a protein to be assayed in contact with the array and is inert to the protein.

Inventorship

Pursuant to the cancellation of claims 1-27 and 48-104, and 37 C.F.R. §1.48(b), please amend the inventorship as follows.

Please remove Stuart Schreiber and John Newman as inventors.

REMARKS

Claims 1-27 and 48-104, which were withdrawn from consideration, are now cancelled without prejudice. Applicants reserve the right to pursue the subject matter of claims 1-27 and 48-104 in one or more divisional applications.

Claim 35 has been amended solely for reasons of clarity. Support for this amendment can be found throughout the specification, for example, on page 17, lines 7-30.

The inventorship has been amended to account for cancellation of claims withdrawn from consideration pursuant to the restriction requirement.

Claims 28-47 remain pending in the application.

REJECTIONS

Rejection of Claims 35-36 Under 35 U.S.C. §112, ¶2

Claims 35 and 36 were rejected under 35 U.S.C. §112, ¶2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Claim 35 has been amended for clarity. The language objected to in the Office Action has been deleted and Applicants' intended meaning has been clarified by the changes to the

claim language shown above and in the Marked-up Claims. It is therefore respectfully requested that the rejection of claim 35 be withdrawn.

The Office Action does not set forth any reasons why claim 36 was rejected under 35 U.S.C. §112, ¶2. Accordingly, it is not possible for Applicants to meaningfully respond. Clarification or withdrawal of this rejection is therefore respectfully requested.

Rejection of Claims 28-41 and 43-47 Under 35 U.S.C. §102(e)

Claims 28-41 and 43-47 were rejected under 35 U.S.C. §102(e) as being anticipated by Charych, et al., U.S. Patent Application Publication No. 2002/0055125 A1 ("Charych"). The Office Action alleges that Charych teaches a protein microarray comprising a solid support coated with microarrayed BSA, where the density of spots comprising BSA ranges from about 1 to 5,000 spots/cm², which anticipates the above claims.

To begin with, Applicants do not concede that Charych is properly prior art to the Applicants' claimed inventions. Applicants reserve the right to establish an invention date for the claimed inventions that is on or before the effective 35 U.S.C. §102(e) date of the subject matter of Charych relied on in the Office Action.

Regarding independent claim 28, while Charych appears to teach the use of bovine serum albumin (BSA) to minimize non-specific binding of proteins to a substrate (see, for example, paragraph 0066, lines 2-5, bridging pages 6-7), Charych does not teach or suggest providing the BSA in an array of spots on a substrate, as recited in claim 28. In stark contrast, Charych instead teaches binding the BSA to the continuous, uncoated regions of the substrate that remain after spotting with other materials, such as peptidomimetic segments, has occurred (for example, see paragraph 0098).

Moreover, nowhere does Charych teach or suggest attachment of a protein to the BSA as also recited in claim 28. Indeed, Charych specifically teaches that his use of BSA is as a blocking agent to prevent attachment of proteins to the BSA-coated portions of the substrate (See paragraph 0098). In short, Charych thus does not even teach or suggest attachment of a protein to BSA, let alone attachment of such protein in a configuration comprising an array of at least 1000 spots per cm², as recited in claim 28.

Applicants therefore believe that claim 28 is not anticipated by Charych, and withdrawal of the rejection of this claim is therefore respectfully requested. Claims 29-41 and 43-47 depend, either directly or indirectly, from claim 28, and, since each of these claims contains all of the limitations of claim 28, it is also respectfully requested that the rejection of these claims be withdrawn.

Rejection of Claim 42 Under 35 U.S.C. §103(a)

Claim 42, which indirectly depends from independent claim 28, was rejected under 35 U.S.C. §103(a) as being unpatentable over Charych in view of Patron, et al., U.S. Patent Application Publication No. 2001/0041349 A1 ("Patron"). The Office Action alleges that while Charych anticipates independent claim 28 from which claim 42 depends, it "fails to specifically teach using poly-histidine-metal interaction as the protein/BSA binding method," as recited in claim 42, which limitation is taught in Patron. Accordingly, the basis for the rejection is that Charych teaches an array meeting all of the limitations of claim 42, except for the limitation added in claim 42 directed to a poly-histidine-metal cation interaction. The Office Action asserts that Patron discloses such an interaction, and that it would have been obvious to combine Charych and Patron.

To begin with, Applicants do not concede that Patron is properly prior art to the Applicants' claimed inventions. Applicants reserve the right to establish an invention date for the claimed inventions that is on or before the effective 35 U.S.C. §102(e) date of the subject matter of Patron relied on in the Office Action.


For a least the reasons discussed above with respect to the above rejection under 35 U.S.C. §102(e), the premise of the rejection (that Charych teaches all of the limitations of claim 42 other than a poly-histidine-metal cation interaction) is incorrect. As discussed above, Charych neither discloses nor suggests the invention recited in claims 28 and 33 from which claim 42 depends. Accordingly, while Applicants do not concede that there would have been any motivation to combine Patron with Charych in the manner suggested in the Office Action, the present basis of rejection cannot stand. Thus, Applicants, therefore, respectfully request withdrawal of the rejection of claim 42.

CONCLUSION

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicants' attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,
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MARKED-UP CLAIMS

Please rewrite the claims below as shown.

35. (Amended) The array of claim 33 or 34, wherein said interaction is characterized in that the linkage is ~~robust enough so that the compounds are~~ (1) not inadvertently cleaved during ~~subsequent manipulation steps~~ addition of a protein to be assayed in contact with the array and (2) ~~is inert so that the functionalities employed do not interfere with subsequent manipulation steps to the protein.~~